

REMARKS

Claims 1-21 are pending in the application.

Claims 1-21 have been rejected; all rejections are traversed.

Claim 1 is amended to include the word “to” that was inadvertently omitted from the previous amendment. Applicant respectfully requests that the Examiner enter this amendment correcting an informality.

Reconsideration of the claims is respectfully requested.

I. CLAIM REJECTION UNDER 35 U.S.C. § 103

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0114305 to *Oyama, et al.*, hereinafter “Oyama” in view of U.S. Patent Publication No. 2001/0012777 to *Igarashi*, hereinafter “2001/0012777”. Claims 8-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0137944 to *Medvinsky*, hereinafter “Medvinsky” in view of Oyama. The Applicants respectfully traverse these rejections.

In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). See also *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984)). It is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. (*Id.* at 1073, 5 USPQ2d at 1598). In so doing, the examiner is expected

to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), viz., (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. In addition to these factual determinations, the examiner must also provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (*In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir 2006) (cited with approval in *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007))).

Absent such a *prima facie* case, the applicant is under no obligation to produce evidence of nonobviousness. MPEP § 2142, p. 2100-125 (8th ed. rev. 5, August 2006). To establish a *prima facie* case of obviousness, three basic criteria must be met: *Id.* First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *Id.* Second, there must be a reasonable expectation of success. *Id.* Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *Id.*

With regard to claim 1 and its dependent claims, and as described in the previous response, One way in which Oyama differs from the features of claim 1 is that Oyama’s quality of service (QoS) profile does not appear to correspond to any mobile station. Rather, Oyama teaches a “pre-established” signaling QoS profile that appears to have no particular association with any mobile

station. No QoS profile corresponding to the mobile station appears to be ever received in Oyama.

The Examiner now concedes that Oyama does not teach receiving an authorization message and quality-of-service profile corresponding to the mobile station, and instead references Igarashi.

The Examiner avers, incorrectly, that Igarashi teaches receiving an authorization message corresponding to the mobile station in paragraphs 0014-0017. These paragraphs describe:

[0014] A mobile communications system according to the present invention is a system, which enables a mobile terminal connecting to a network composed of a plurality of sub-networks to be provided with communication similar to that provided in a first sub-network when connecting in a second sub-network, even after moving from the first to the second sub-network. This system comprises: a correspondent terminal making a communication with the mobile terminal; an authenticating unit authenticating the correspondent terminal; a setting unit setting communication parameters that the correspondent terminal requires to make a communication with the mobile terminal when the mobile terminal moves from the first to the second sub-network; and a communicating unit making a communication between network controlling devices so as to set the communication parameters.

[0015] A mobile communications method according to the present invention is a method, for use in a network including a correspondent terminal making a communication with a mobile terminal, which enables the mobile terminal connecting to a network composed of a plurality of sub-networks to be provided with communication similar to that in a first sub-network when connecting in a second sub-network, even after moving from the first to the second sub-network. This method comprises the steps of: (a) authenticating the correspondent terminal; (b) setting communications parameters that the correspondent terminal requires to make a communication with the mobile terminal when the mobile terminal moves from the first to the second sub-network; and (c) making a communication between network controlling devices so as to set the communication parameters.

[0016] A router according to the present invention accommodates a terminal which makes a communication with a mobile terminal, hunts binding information about the mobile terminal, which is transferred from the home agent of the mobile terminal to the terminal, and processes data packets from the terminal to the mobile terminal based on the binding information.

[0017] According to the present invention, devices arranged within a network make a communication for managing or setting communication parameters required when a mobile terminal moving between sub-networks communicates with a correspondent terminal while straddling the sub-networks, and the correspondent terminal communicates with the mobile terminal via these devices. Accordingly, the correspondent terminal does not need to comprise a particular capability to receive a communication service with the mobile terminal, so that a heavy processing load is never imposed on the correspondent terminal. Therefore, various terminals possessed by users are available as a correspondent terminal, and the users can easily receive a communication with a mobile terminal.

It is clear upon reading these paragraphs that nothing describes an authorization message at all, and certainly not one that corresponds to a mobile station – these paragraphs describe a hardware architecture and a method, and reference an authenticating unit authenticating the correspondent terminal, but not how this is performed.

However, to ensure that the reference is considered as a whole, applicant respectfully notes that paragraph 0088 describes:

[0088] Accordingly, a proxy CN [*Correspondent Node*] 24 is arranged between the CN 25 and the HA [*Home Agent*] 26. The proxy CN 24 comprises a functional group including CMF, TCF, MHF, CD, and MAF, which will be described later. The CN 25 accesses the proxy CN 24 in order to communicate with the MN. The proxy CN 24 inquires of a link layer authenticating server 23 as to whether or not to authenticate an access of the CN 25. The link layer authenticating server 23 obtains necessary parameters by referencing a service profile database 27 according to the NAI of the CN 25, verifies the content of the service to be provided to the CN 25, and notifies the proxy CN 24 that the communication is authorized. The proxy CN 24 issues communication authorization to the CN 25. The CN 25 that receives the communication authorization transmits the message from the CN 25 to the MN via the proxy CN 24 and the HA 26. The message transmitted to the HA 26 is then transmitted to the MN as described above.

This paragraph does describe a message that authenticates *an access of the Correspondent Node 25*, which is a node with which a mobile terminal communicates. There does not appear to be any authorization of a mobile terminal, as claimed (noting that Igarashi uses the terms “Mobile Node” or “MN”), or any authorization message that *corresponds to* the mobile terminal.

Igarashi similarly does not teach any QoS profile that corresponds to the mobile station, as claimed. The Examiner alleges that this is taught in paragraphs 0007 and 0060-0068, but it is not:

[0007] Exemplified here is a method like PBN (Policy Base Network) with which a policy server & NMS (Netware Management System) makes a service negotiation with a user, and an admission control for each user is provided in a fixed network. With the PBN, a policy server distributes network operation policies (control parameters) to a network device group (including a router, etc.) and sets them in the group. The network device group implements services such as QoS (Quality of Service: service quality control), etc. by referencing the above described policies when controlling packets. ...

[0060] An acronym that is used by IETF for a server group that performs authentication, authorization, and accounting. The AAA server group comprises a function for respectively notifying an HA or an FA (Foreign Agent) of a service profile by using an HA registration request message or an authentication acknowledge message via an AAAF.

[0061] In addition to the above described functions, the AAA server group according to the present invention comprises a service management function for extracting a service profile of a user who makes an authentication request from a service control database, and for generating a service profile having a general-purpose format in which packet control information can be set. An AAAH is an AAA server in a network, which holds the subscriber data of the user who makes the authentication request, whereas an AAAF is an AAA server in a network, which does not hold the subscriber data of the user. The AAAF identifies the AAAH based on the NAI (Network Access Identifier) of the user, and directly transmits a message to the HA as a proxy.

[0062] FA (Foreign Agent)

[0063] A functional entity defined by RFC 2002. An agent which does not have a home address assigned to a mobile terminal. De-encapsulating a packet which is encapsulated and transmitted to a care-of-address being the address of its own node, and relaying the packet to the link layer address corresponding to the home address. This address correspondence is managed by a table called a visitor list. At the same time, the FA is an access router of a mobile terminal and an AAA protocol client. The FA has a session transaction function for managing a DIAMETER session.

[0064] HA (Home Agent)

[0065] A functional entity defined by RFC 2002. An agent having a home address assigned to a mobile terminal. The packet, which is addressed to the home address of the mobile terminal and relayed by the HA, is encapsulated and transmitted to the care-of-address of the FA, which corresponds to the home address. Here, a "care-of-address" is something like a post office box in a normal postal system. This address correspondence is managed by a table called a (mobile) binding cache. The HA is an AAA protocol client at the same time. The HA has a session transaction function for managing a DIAMETER session.

[0066] Furthermore, the present invention relates to route optimization in the Mobile IP, and to the technique recited in the Japanese Patent application No. 11-276703.

[0067] FIG. 1 explains the mobile IP.

[0068] Assume that a network is composed of sub-networks 1 and 2. Also assume that a mobile node (MN) 12 first stays in a sub-network 2, and makes a communication with a CN 13 via an HA 11. The MN 12 can be carried like a portable PC, and can be connected to a different network.

Certainly, the background paragraph 0007 acknowledges that QoS considerations exist, but does not teach a QoS profile corresponding to the mobile station. Paragraphs 0060-0068 generally refer to a service profile of a *user* – but that service profile is not taught as being a QoS profile, and is taught as corresponding to a *user*, not a mobile terminal as claimed.

It is clear that the Examiner's newly cited art, Igarashi, still does not teach the claim limitations of claim 1 and its dependent claims.

Moreover, claim 1 was amended in the previous response to require receiving an authorization message and quality-of-service profile corresponding to the mobile station according to a level of service authorized for the mobile station. This is not taught by any reference, alone or in any combination, and the Examiner does not even address this limitation in his final rejection. As such, there is no *prima facie* rejection of these claims.

With regard to claims 8 and 15, and their respective independent claims, Claims 8 and 15 both require that the QoS controller receives from the authorization server an authorization message and quality-of-service profile corresponding to the mobile station. The Examiner concedes that Medvinsky does not teach a QoS profile corresponding to the mobile station.

As described above with regard to Claim 1, and incorporated here by reference, Oyama also does not teach a QoS profile corresponding to the mobile station. Rather, Oyama teaches a generic "pre-established signaling quality of service profile" that is "pre-established and configured in various nodes in an access network" (see abstract and para. 0043). As such, Oyama's "pre-established" QoS profile does not correspond to the mobile station, as claimed.

As the Examiner concedes with regard to claim 1 that this limitation is not taught by Oyama, it is difficult to understand why the Examiner states the opposite with regard to these claims. It is clear that no combination of Oyama and Medvinsky (or any other cited art, including Igarashi) teaches or suggests these limitations of the claims.

Accordingly, the Applicants respectfully requests the Examiner to withdraw the § 103 rejection with respect to these claims.

CONCLUSION

As a result of the foregoing, the Applicants assert that the remaining claims in the Application are in condition for allowance, and respectfully requests that this Application be passed to issue.

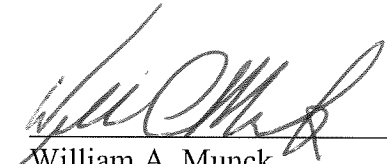
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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